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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,109	12/08/1999	Maximino Vasquez	CT-317	8454

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EXAMINER

ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 11/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/458,109

Applicant(s)

Vasquez

Examiner

Christopher O. Onuaku

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 8, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16, 18-21, and 24 is/are allowed.
- 6) ☒ Claim(s) 17, 22, 23, 25, 26, and 28-41 is/are rejected.
- 7) ☒ Claim(s) 27 and 42 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/8/03 have been fully considered but they are not persuasive.

Applicant argues that Yamauchi fails to disclose the limitation inserting a key into the subpicture data to indicate that the data is subpicture information and not the graphics data and that the 8 bits of subpicture of Yamauchi indicate that the data is subpicture information and not audio data, and that, therefore, there is no place or step where the subpicture data is stored or written to with graphics data.

In response, it is important for the applicant to point out that the Yamauchi 8 digit identifier identifies a subpicture and physical channel for the audio and not the audio itself. For example, an audio channel can be described as number(s) or by letter(s), and this is simply the channel through which the audio signal is played or broadcast. These number(s) or character(s) that represent the channel through which the audio signal is broadcast are graphics information. It follows that 8 digit identification number identifies individually the subpicture information and graphics information. In other words, the 8 bit identification information indicates that the data is subpicture information and not graphics data. When this 8 bit identification information is stored or written to, the subpicture data is stored or written to with graphics data..

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Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17,22,23,25&26 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamauchi et al (US 6,088,507).

Regarding claim 17, Yamauchi et al disclose a multimedia optical disc which stores multimedia data, including an apparatus and a method for reproducing the multimedia optical disc, the method comprising:

a) inserting a key into the subpicture data to indicate that the data is subpicture information and not the graphics data (see Fig.7, col.10, lines 4-22), here, examiner reads "key" as the means for identifying the sub-picture information; the data field of the sub-picture pack stores sub-picture data (image data), the stream ID is set to "1011 1101", wherein the higher three bits of the sub-picture ID indicate the data is the sub-picture data sub-picture information), and the lower five bits indicate a channel. Note the examiner reads the channel portion of the image data as the graphics information;

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b) writing the subpicture data to a primary surface, the primary surface also receiving the graphics data (see Fig.7; col.10, lines 4-22), here, the data field of the sub-picture pack stores the sub-picture data, and the sub-picture data includes the sub-picture information and the graphics information, as discussed above.

Regarding claim 22, Yamauchi further discloses:

a) a memory (see Fig.1) having a primary surface and a video surface the primary surface being adapted to receive subpicture data and graphics data (see Fig.2-7 which show the structure and the enlarged structure of the DVD, including the management portion and the portions where the audio/video information are written and the portions where the sub-picture data, which includes the sub-picture information and the graphics or channel information are written);

b) a key inserter adapted to insert a key indicating that data is subpicture and not graphics data (see col.10, lines 4-22), here Yamauchi shows the sub-picture data, is identifiable to facilitate the searching of the identified data is identified;

c) a subpicture data writer coupled to the key inserter and coupled to the primary surface (see col.10, lines 4-22) the discussions in this claim and the claims 17&22, show that the information recorded in the DVD is identified in order to facilitate the searching and retrieval of such information. Inherently in Yamauchi the subpicture data writer is coupled to the key inserter and to the primary surface in order to record the subpicture data and the subpicture id on the surface of the DVD recording means.

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Regarding claim 23, Yamauchi discloses:

- a) a primary surface reader coupled to the primary surface (see Fig.18, the reproduction apparatus, the optical pickup 82 (col.16, lines 13-38); and
- b) a subpicture key block coupled to the primary surface (see Fig.7 which shows the data format of the packs that make up the sub-picture data, such as "SP A-1" of Fig.4A; col.10, lines 4-22).

Regarding claim 25, the claimed limitations of claim 25 are accommodated in the discussions of claim 17 above.

Regarding claim 26, the claimed limitations of claim 26 are accommodated in the discussions of claim 17 above.

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi in view of Nakai et al (US 5,999,698).

Regarding claim 28, Yamauchi et al fail to explicitly disclose wherein the primary surface is in 24-bit RGB mode.

Nakai et al teach a DVD capable of recording image and audio data on a special recording medium and reproducing them in synchronism with each other, and a reproduction system thereof, wherein, as shown in Fig.102, DVD window 6A for displaying a DVD video program is output at the upper side of the monitor screen of monitor 6, and within DVD window 6A, movie pictures, still pictures and/or menus are presented with a full-color display mode (a 24-bit RGB display mode is preferable, but 8- to 16- bit RGB display mode may be used for a plain color presentation) (see col.86, lines 6-12). It would have been obvious to modify Yamauchi by realizing Yamauchi with the means to process/display, for example, menus in 24-bit RGB mode, as taught by Nakai, in order to process/display, for example, menus in 24-bit RGB mode.

Regarding claim 29, Yamauchi discloses wherein the subpicture data has 8 bits (see col.10, lines 4-22).

Regarding claim 30, as discuss above, Yamauchi discloses inserting an 8-bit key into the subpicture data to indicate that the data is subpicture information and not the graphics data. However, Yamauchi fails to explicitly disclose inserting a 16-bit key into the subpicture data to

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indicate that the data is subpicture information and not the graphics data. It would have been obvious to obvious to insert a 16-bit key into the subpicture data to indicate that the data is subpicture information and not the graphics data, instead of an 8 bit key as, for example, another way of identifying a subpicture data to indicate that the data is subpicture information and not the graphics data.

Regarding claim 31, Yamauchi modified with Nakai, it would have been obvious to evenly spread the 16-bit key among 24 bits of Nakai, in order, for example, to satisfy a desired design consideration.

Regarding claim 32, during the reproduction mode of Yamauchi, to reproduce the subpicture, inherently the Yamauchi system examines the 8 bits of the subpicture data and compares the 8 bits with the 8-bit combination reserved to indicate subpicture data. It, therefore, would have been obvious to similarly examine the 16 bits of a subpicture data and compare the 16 bits with the 16-bit combination reserved to indicate subpicture data, in order to maintain the efficiency of Yamauchi.

6. Claims 33-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi in view of Bilbrey et al (U 5,999,698).

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Regarding claim 33, Yamauchi fails to explicitly disclose wherein the primary surface is in 16-bit 565 RGB mode. Bilbrey et al teach methods and apparatus for real time digital video image processing of video image data suitable for use with a microprocessor or microcomputer and capable of providing multiple simultaneous special video effects wherein recorded video image data is processed in 16-bit 565 RGB mode (see col.17, col.17, line 59 to col.18, line 1). It would have been to modify Yamauchi by realizing Yamauchi with the means to process recorded video data in 16-bit 565 RGB mode, as taught by Bilbrey, in order, for example to process the Yamauchi image data in 16-bit 565 RGB mode.

Regarding claim 34, the claimed limitations of claim 34 are accommodated in the discussions of claim 29 above.

Regarding claim 35, the claimed limitations of claim 35 are accommodated in the discussions of claim 1 above.

Regarding claim 36, Yamauchi modified with Bilbrey, it would have been obvious to evenly spread the 8-bit key of Yamauchi among 16 bits of Bilbrey, in order, for example, to satisfy a desired design consideration.

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Regarding claim 37, the claimed limitation of determining 8 bits of the data and comparing the 8 bits with an 8-bit combination reserved to indicate subpicture data is inherent in the reproduction process of Yamauchi in or order, for example, to maintain the efficiency of Yamauchi.

Regarding claim 38, Bilbrey further teaches wherein the primary surface is in 16-bit 555 RGB mode, wherein the 16-bit 555 RGB mode provides 5 bits for red information, 5 bits for green information, 5 bits for blue information, and 1 empty bit (see col 17, line 59 to col.18, line 1).

Regarding claim 39, Yamauchi discloses wherein the subpicture data has 8 bits (see col.10, lines 4-22).

Regarding claim 40, as discuss above, Yamauchi discloses inserting an 8-bit key into the subpicture data to indicate that the data is subpicture information and not the graphics data. However, Yamauchi fails to explicitly disclose inserting a 1-bit key into the empty bit of the subpicture data to indicate that the data is subpicture information and not the graphics data. It would have been obvious to obvious to similarly insert a 1-bit key into the empty bit of the subpicture data to indicate that the data is subpicture information and not the graphics data,

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instead of an 8 bit key as, for example, another way of identifying a subpicture data to indicate that the data is subpicture information and not the graphics data.

Regarding claim 41, during the reproduction mode of Yamauchi, to reproduce the subpicture, inherently the Yamauchi system examines the 8 bits of the subpicture data and compares the 8 bits with the 8-bit combination reserved to indicate subpicture data. It, therefore, would have been obvious to similarly examine the 1 bit of a subpicture data and compare the 1 bit with the 1-bit combination reserved to indicate subpicture data, in order to maintain the efficiency of Yamauchi.

Allowable Subject Matter

7. Claims 1-16,18-21&24 are allowable over the prior art of record.

8. The following is a statement of reasons for the indication of allowable subject matter: .

Regarding claim 1, the invention relates to the rendering of a DVD-video subpicture on a computer system without loss of color resolution.

The closest reference Yamauchi et al (US 6,088,507) disclose a multimedia optical disc which stores multimedia data, including an apparatus and a method for reproducing the multimedia optical disc.

However, Yamauchi et al fail to explicitly disclose a method for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture

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resolution, where the method includes converting the subpicture data to an RGB value and an alpha value and blending the RGB value with DVD video data according to the alpha value if the data is subpicture data, and combining the graphics data with the DVD video data if the data is graphics data.

Regarding claim 18, the invention relates to the rendering of a DVD-video subpicture on a computer system without loss of color resolution.

The closest reference Yamauchi et al (US 6,088,507) disclose a multimedia optical disc which stores multimedia data, including an apparatus and a method for reproducing the multimedia optical disc.

However, Yamauchi et al fail to explicitly disclose a DVD data renderer where the DVD data DVD renderer includes a subpicture detector coupled to the subpicture key select block, an index select block coupled to the primary surface reader, a subpicture palette coupled to the index select block, an alpha select block coupled to the primary surface reader, a multiplexor having a plurality of inputs and an output, one of the inputs coupled to the alpha select block and another of the inputs coupled to the subpicture detector, a video surface reader coupled to the video surface, and an alpha blender coupled to the subpicture palette, the multiplexor, and the video surface reader.

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Regarding claim 24, the invention relates to the rendering of a DVD-video subpicture on a computer system without loss of color resolution.

The closest reference Yamauchi et al (US 6,088,507) disclose a multimedia optical disc which stores multimedia data, including an apparatus and a method for reproducing the multimedia optical disc.

However, Yamauchi et al fail to explicitly disclose a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for rendering DVD subpicture data on a computer having graphics data without a loss of subpicture resolution, where the method includes converting the subpicture data to an RGB value and an alpha value and blending the RGB value with DVD video data according to the alpha value if the data is subpicture data, and combining the graphics data with the DVD video data if the data is graphics data.

9. Claims 27&42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: .

Regarding claim 27, the invention relates to the rendering of a DVD-video subpicture on a computer system without loss of color resolution.

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The closest reference Yamauchi et al (US 6,088,507) disclose a multimedia optical disc which stores multimedia data, including an apparatus and a method for reproducing the multimedia optical disc.

However, Yamauchi et al fail to explicitly disclose a an apparatus for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, where the apparatus comprises means for converting the subpicture data to an RGB value and an alpha value and blending the RGB value with DVD video data according to the alpha value if the data is subpicture data and means for combining the graphics data with the DVD video data if the data is graphics data.

Regarding claim 42, the invention relates to the rendering of a DVD-video subpicture on a computer system without loss of color resolution.

The closest references Yamauchi et al (US 6,088,507) disclose a multimedia optical disc which stores multimedia data, including an apparatus and a method for reproducing the multimedia optical disc, and Bilbrey teach methods and apparatus for real time digital video image processing of video image data suitable for use with a microprocessor or microcomputer and capable of providing multiple simultaneous special video effects.

However, Yamauchi and Bilbrey fail to explicitly disclose a an apparatus for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, where the apparatus means for creating an alpha value based on whether the graphics

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data represents a color set aside as a key color and combining the graphics data and the DVD video data according to the alpha value.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

12. Any inquiry concerning this communication or earlier communications from this examiner should be directed to Christopher Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on Tuesday to Thursday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Monday.

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If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Andrew B. Christensen, can be reached on (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

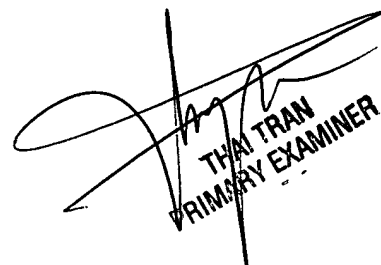
and (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to Customer Service whose telephone number is (703) 306-0377.


COO

11/15/03


THAI TRAN
PRIMARY EXAMINER